

FIG._1

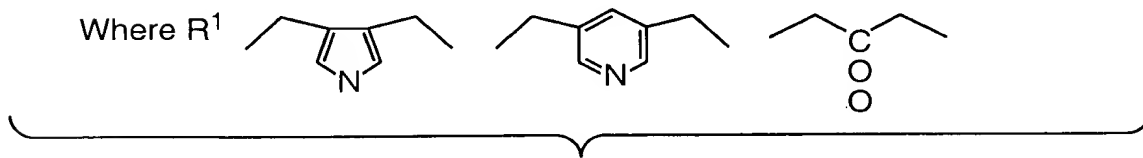
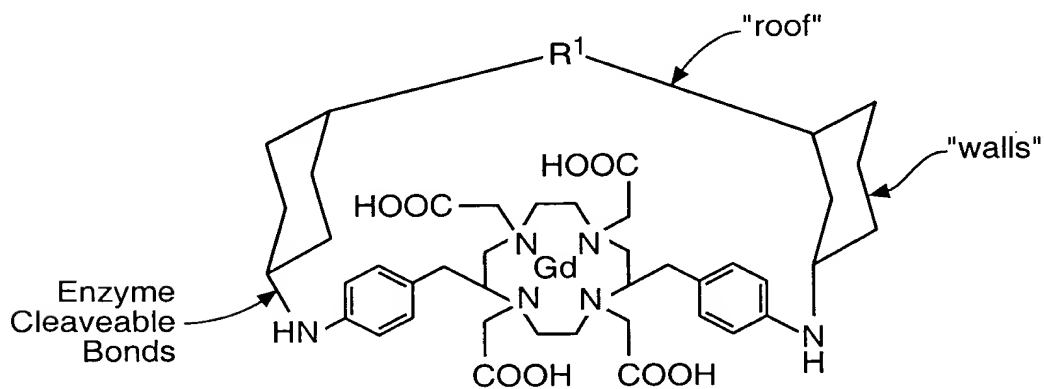


FIG._2

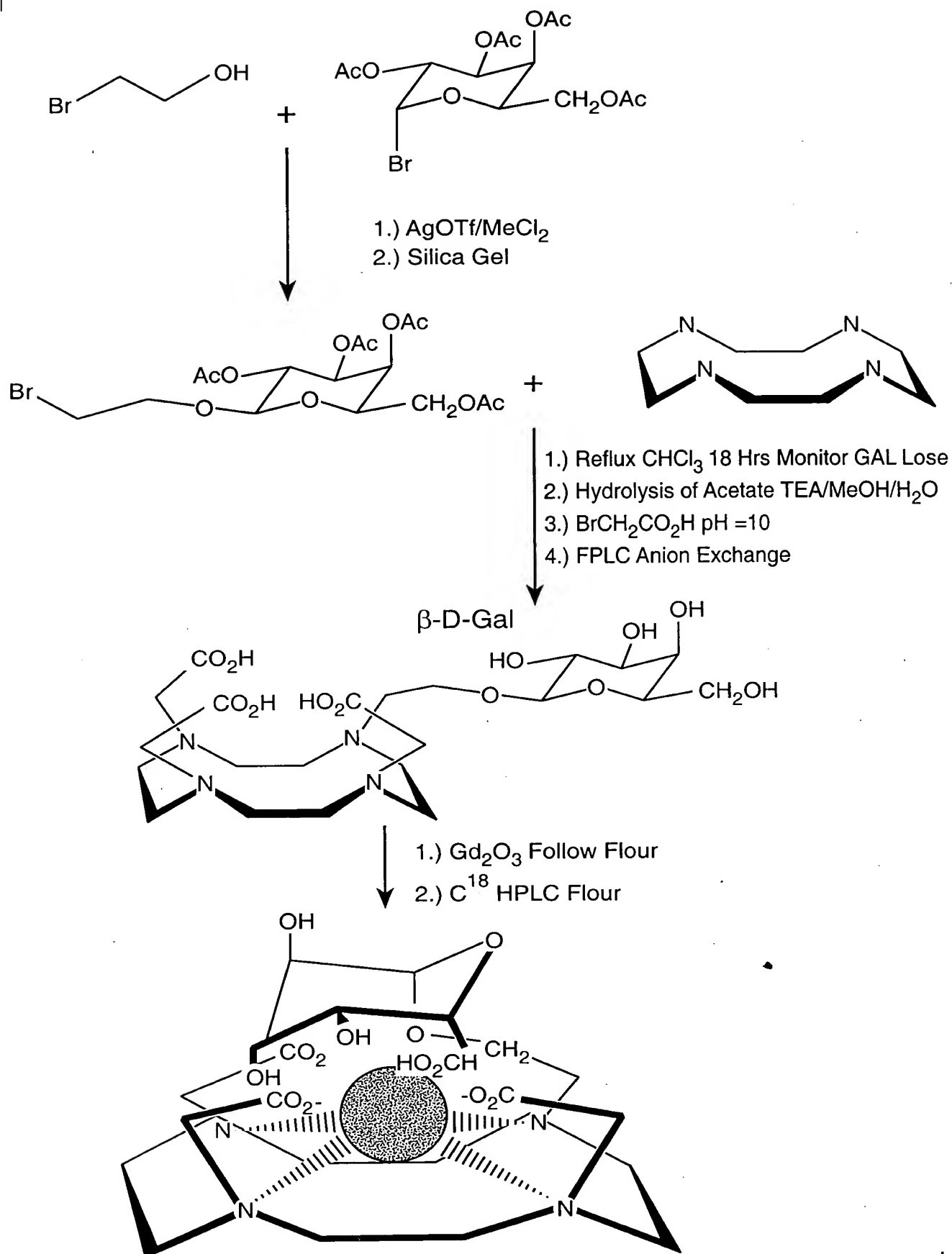
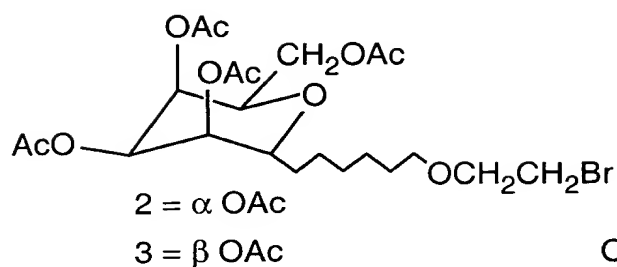
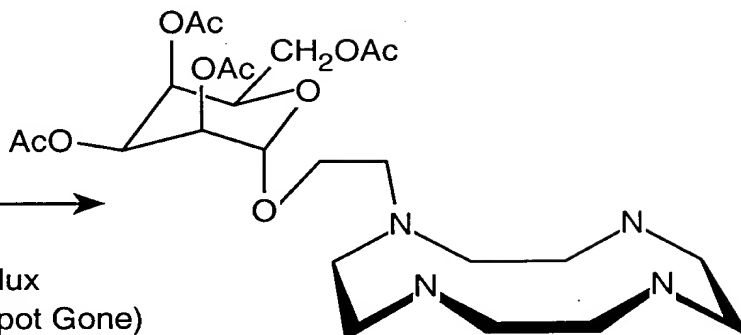


FIG. 3



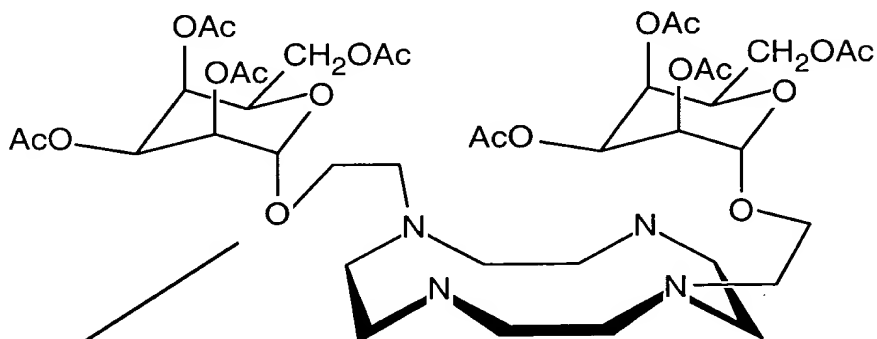
1 + 2

CHCl_3
 48 Hrs Reflux
 T.L.C. (2 Spot Gone)



1

5 12 = α OH
 (7 = β) 13 = β OH



~2:1 6:5

Silica
 4:1 $\text{CHCl}_3/\text{MeOH}$

6
 (8 = β)

8

- 1.) Hydrolysis Of Acetate
TCA/MeOH / H_2O
- 2.) $\text{BrCH}_2\text{CO}_2\text{H}$ pH = 10
- 3.) FPLC Cation Exchange
pH = 2 Acetic Acid Gradient

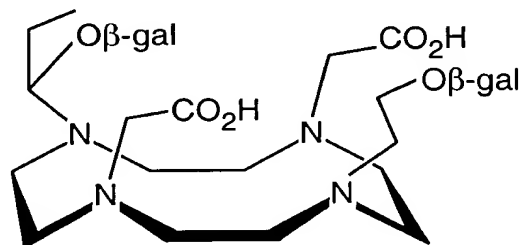


FIG. 4

+

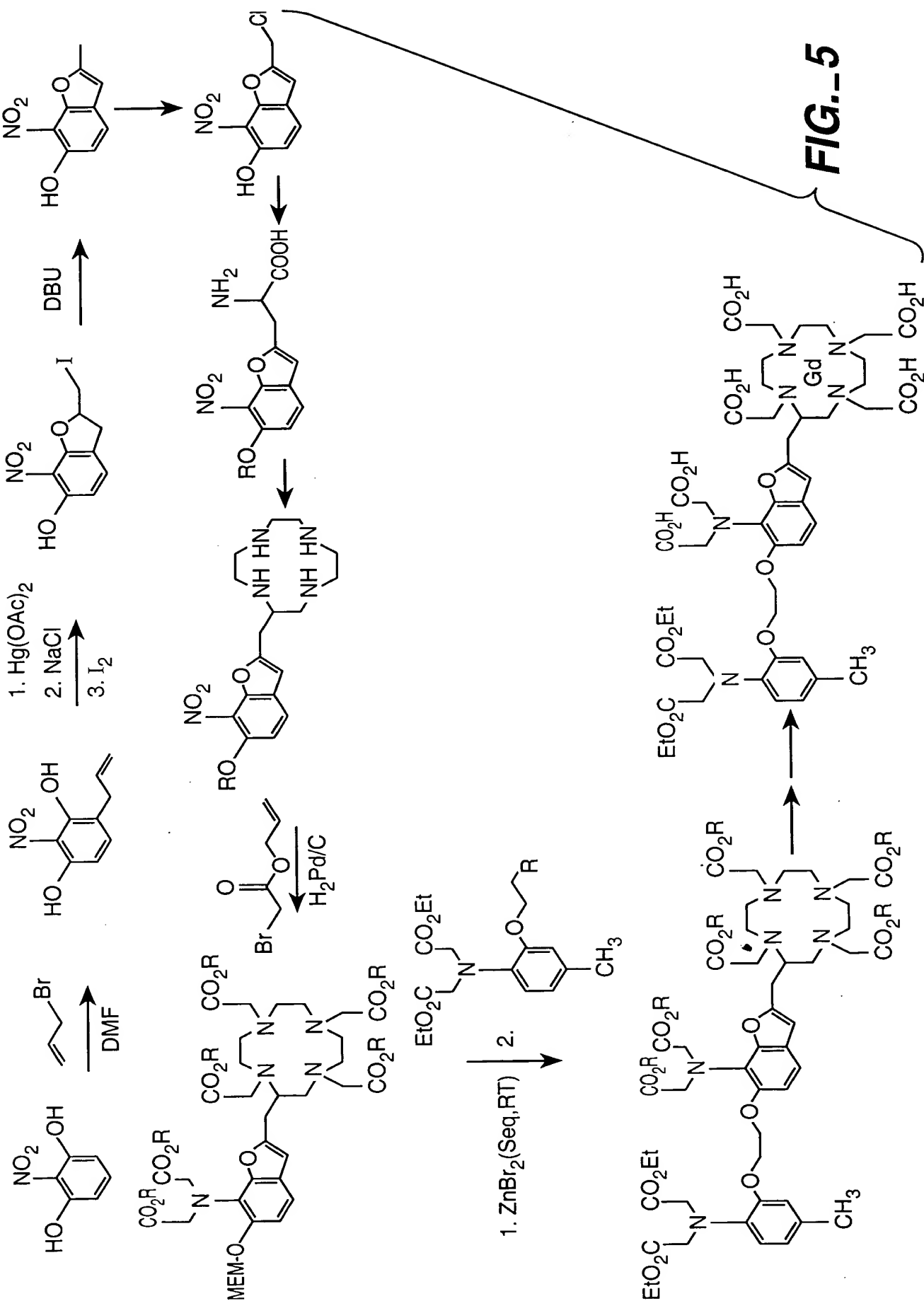
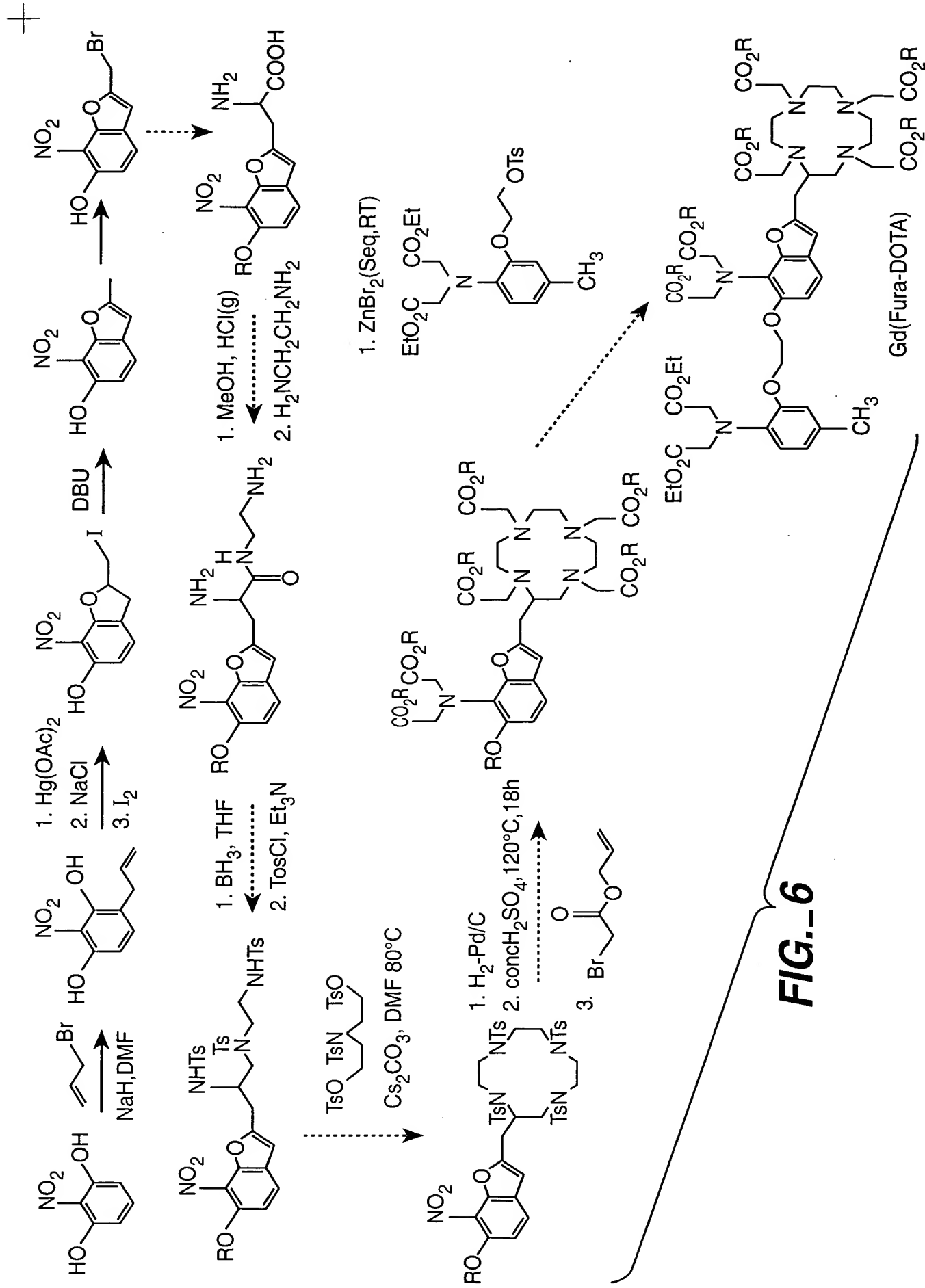
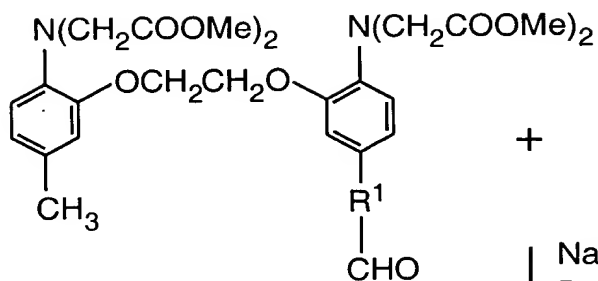


FIG. 5

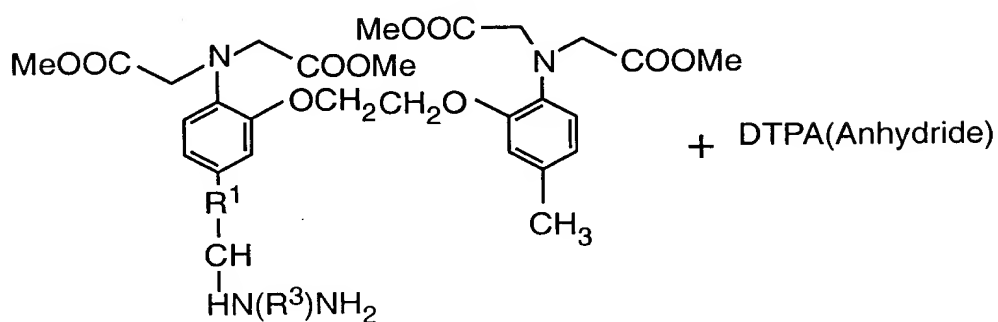
+





↓
 NaCNBH_3
 Dry MeOH
 Argon

↓
 HPLC



↓
 HPLC

↓
 Gd(III)

↓
 Remove Protecting
 Groups

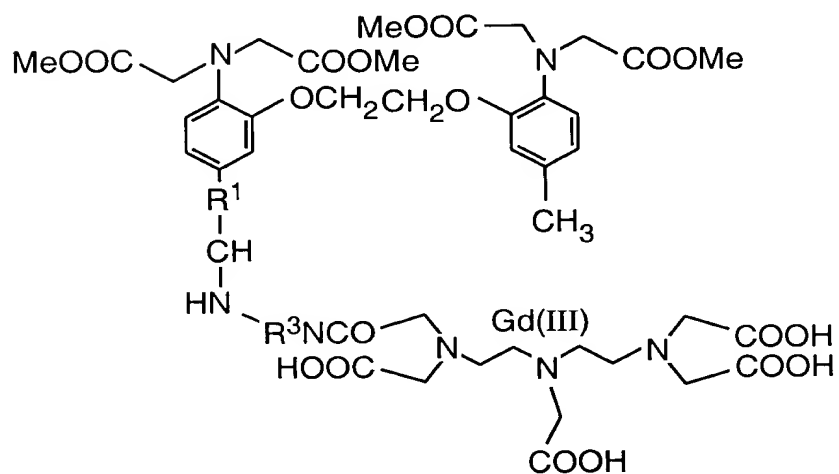
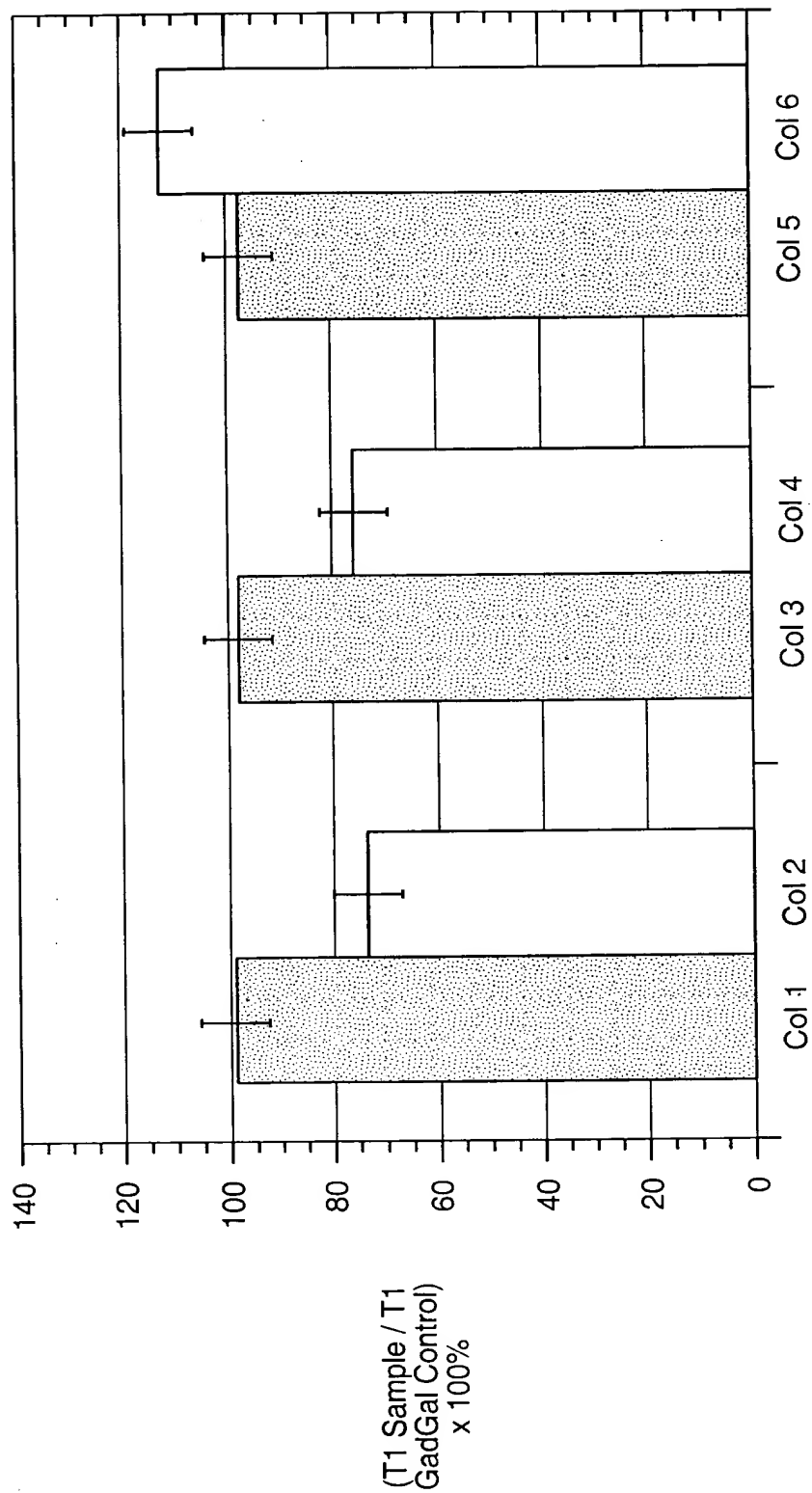
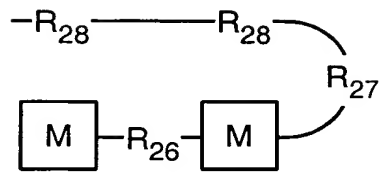
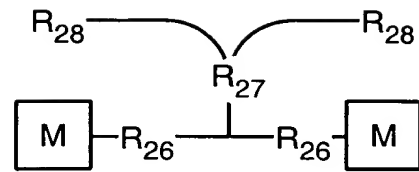
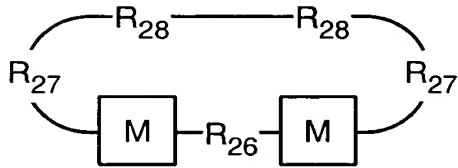
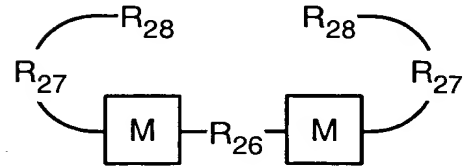
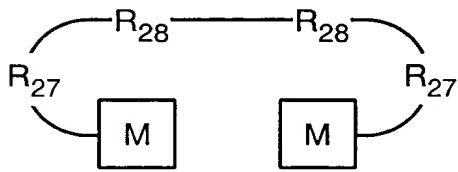
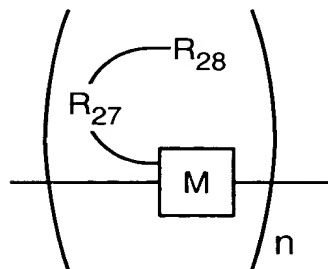
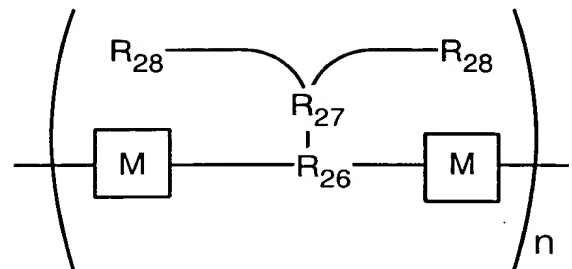
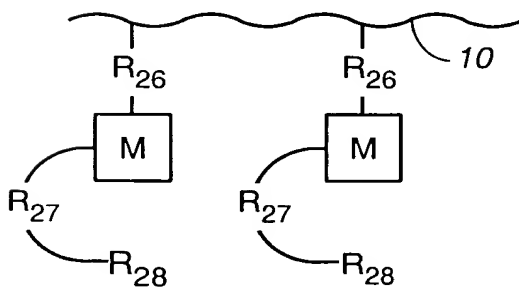
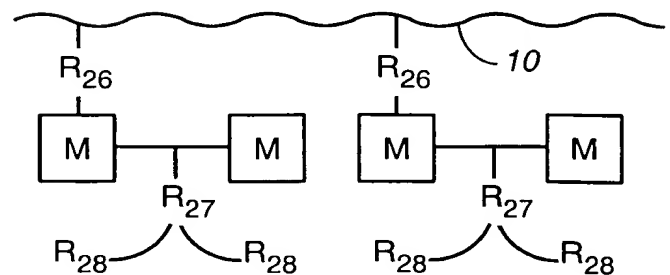


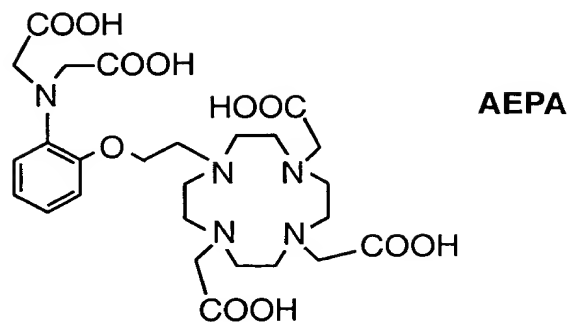
FIG. 8



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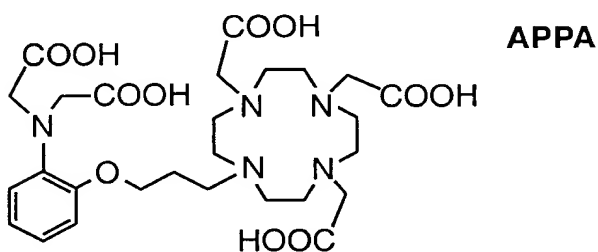
**FIG. 10A****FIG. 10B****FIG. 10C****FIG. 10D****FIG. 10E****FIG. 10F****FIG. 10G****FIG. 10H****FIG. 10I**

+



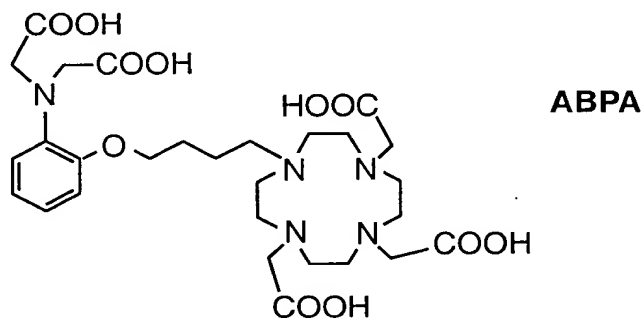
1-o-aminophenoxy-2-(cyclen)ethane-N,N,N',N'',N'''-pentaacetic acid

FIG._11A



1-o-aminophenoxy-3-(cyclen)propane-N,N,N',N'',N'''-pentaacetic acid

FIG._11B



1-o-aminophenoxy-4-(cyclen)butane-N,N,N',N'',N'''-pentaacetic acid

FIG._11C

+

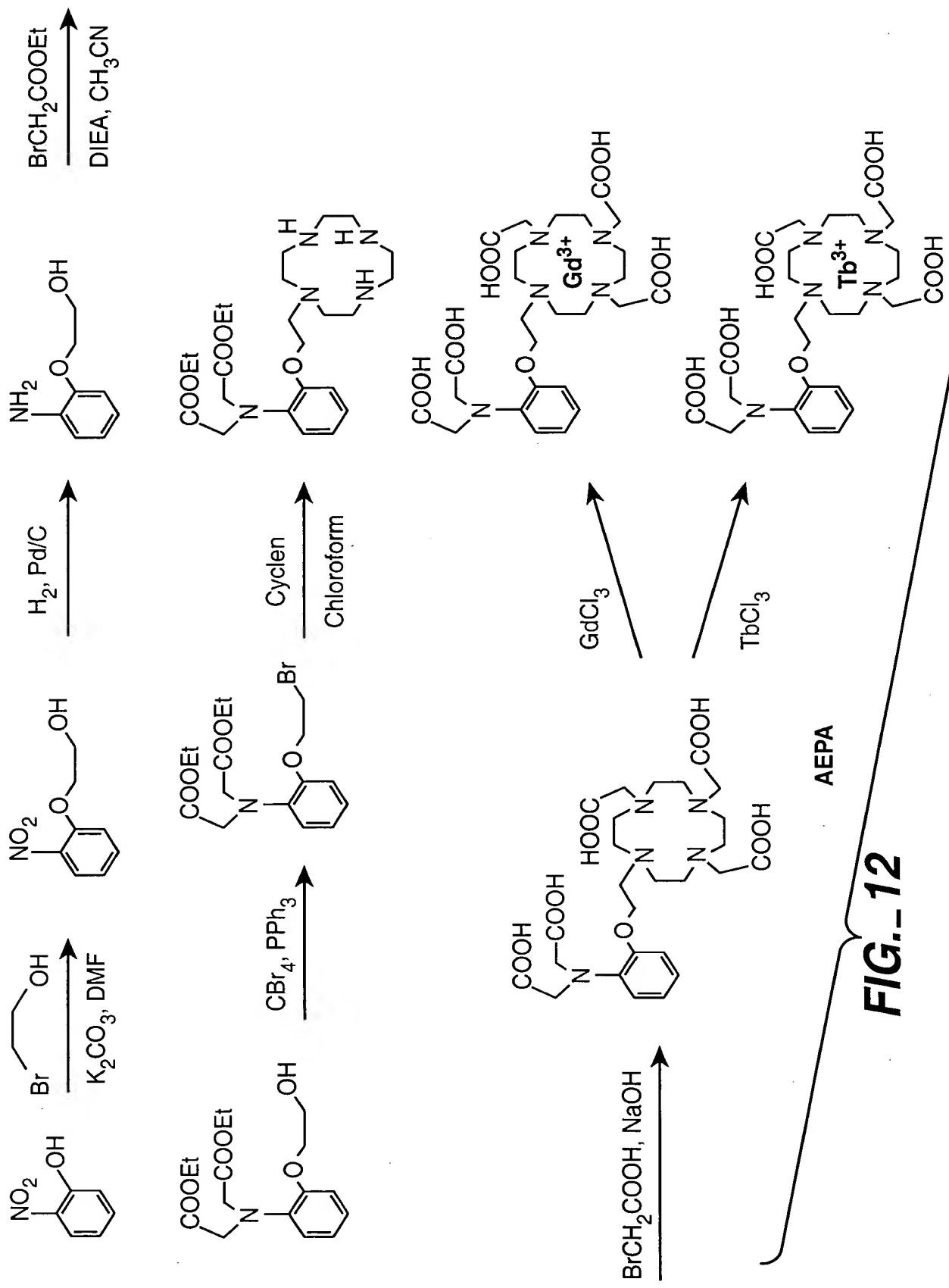


FIG. 12

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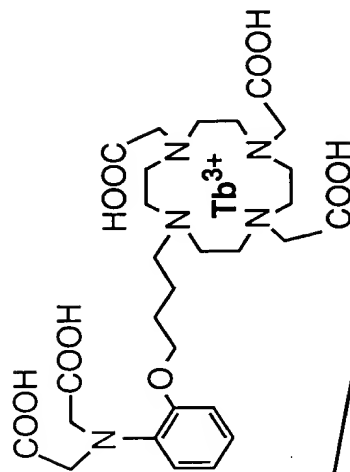
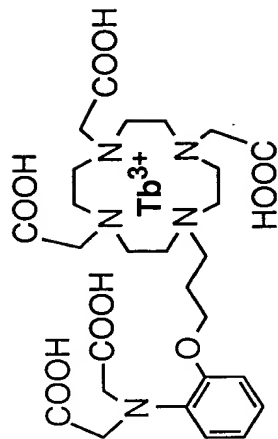
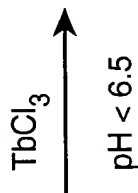
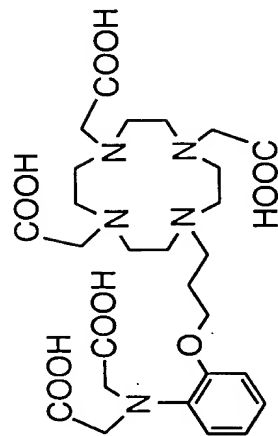
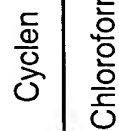
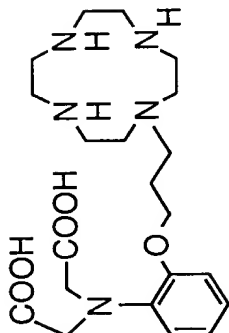
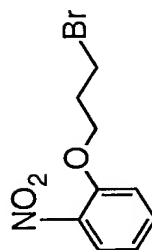
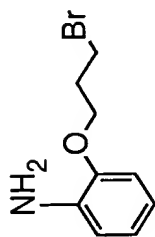
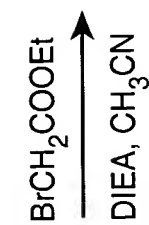


FIG. 13



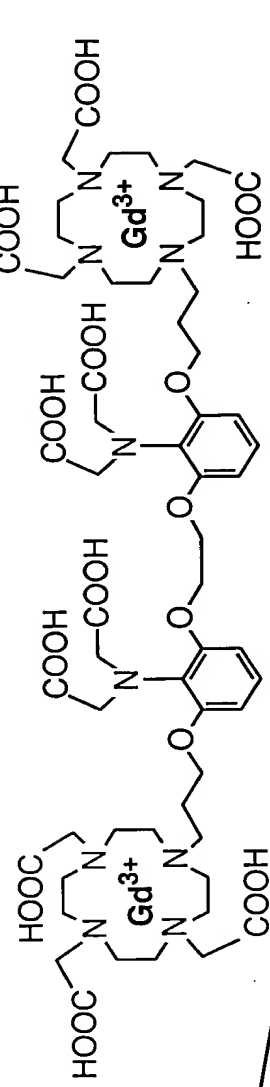
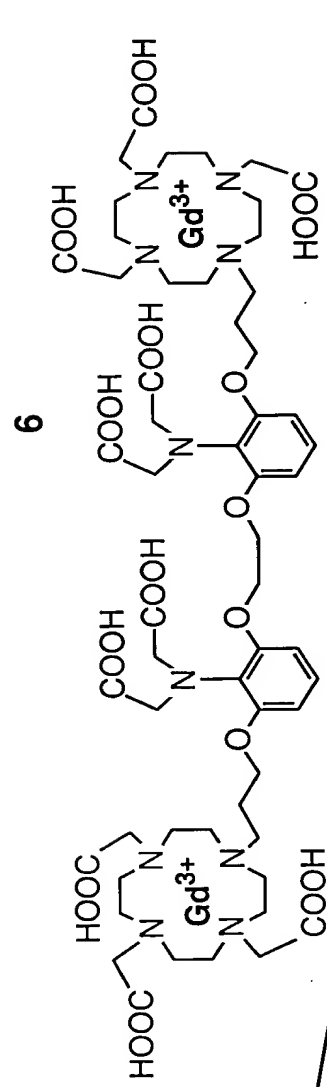
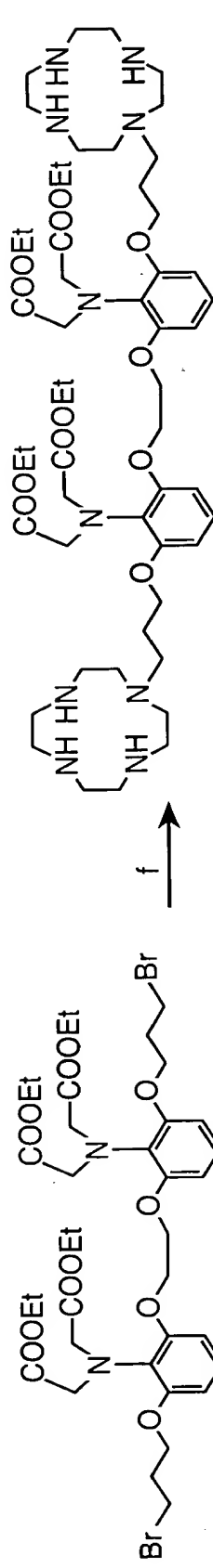
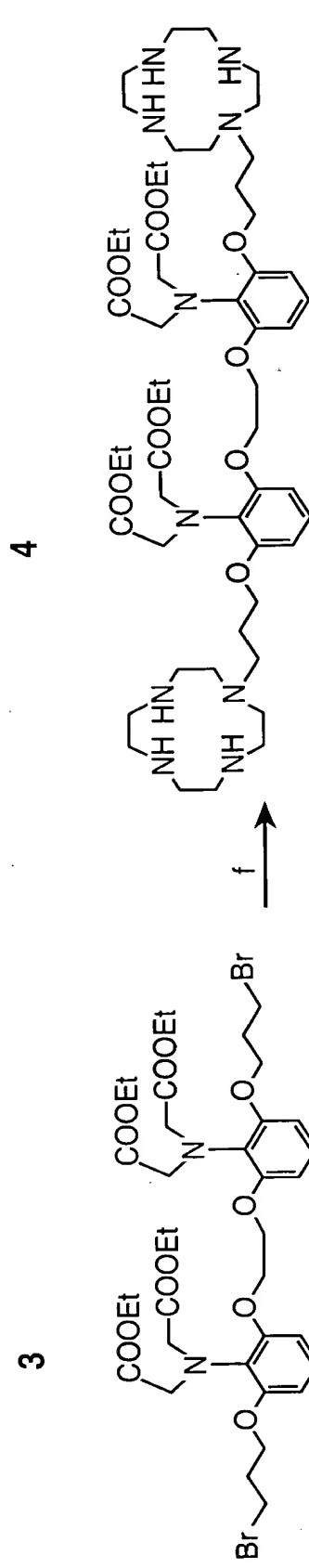
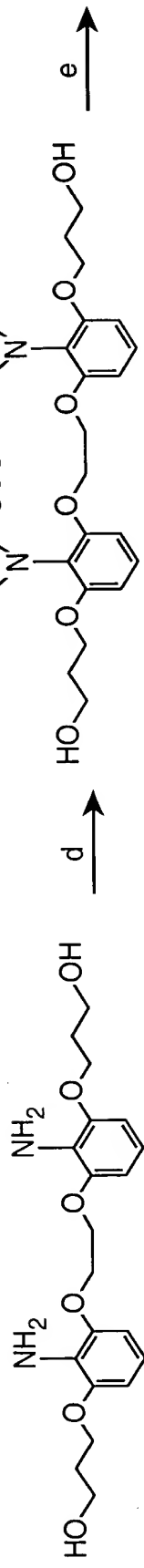
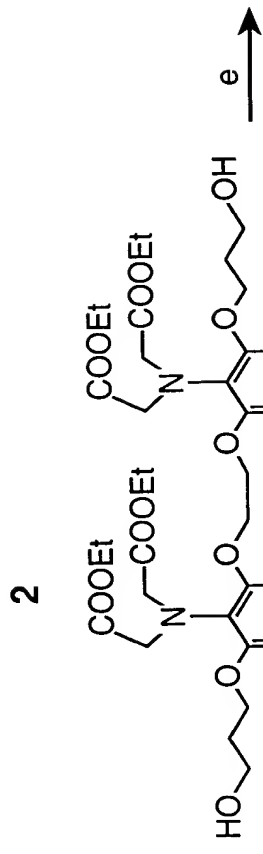
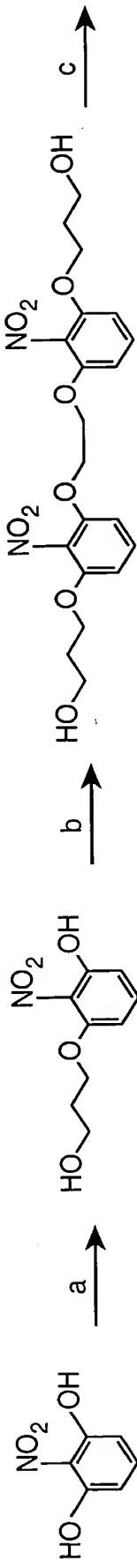


FIG. 14

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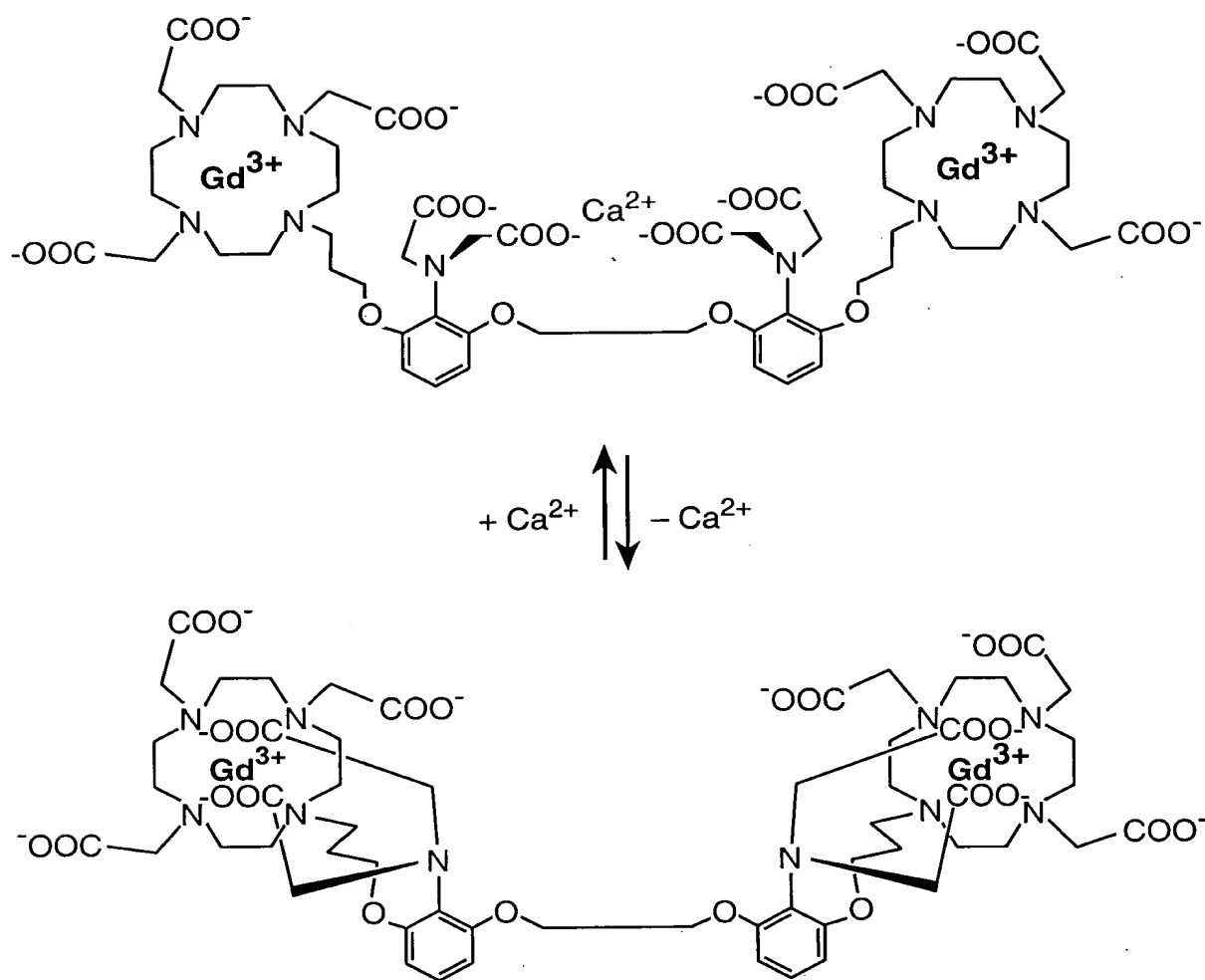


FIG. 15

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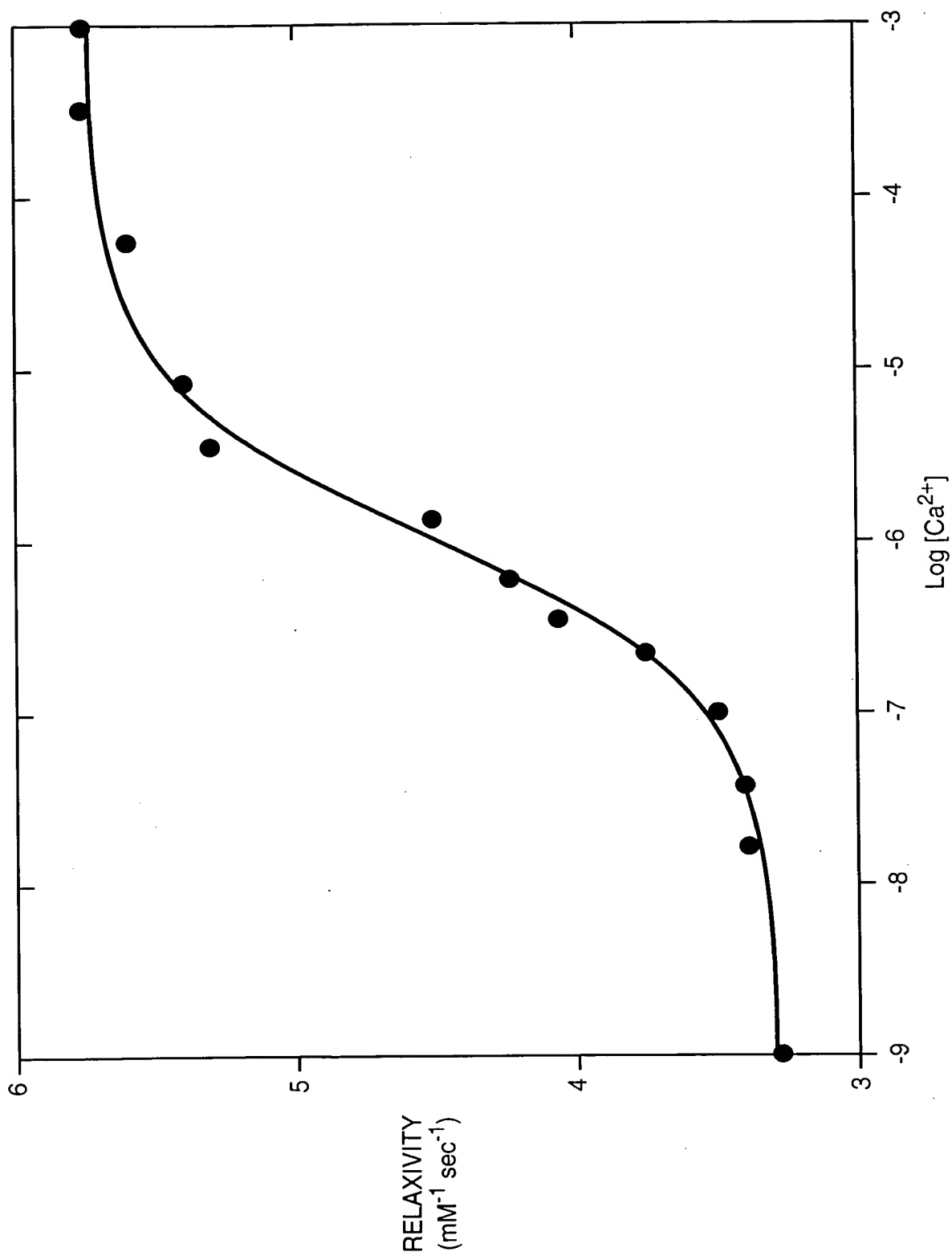


FIG. 16

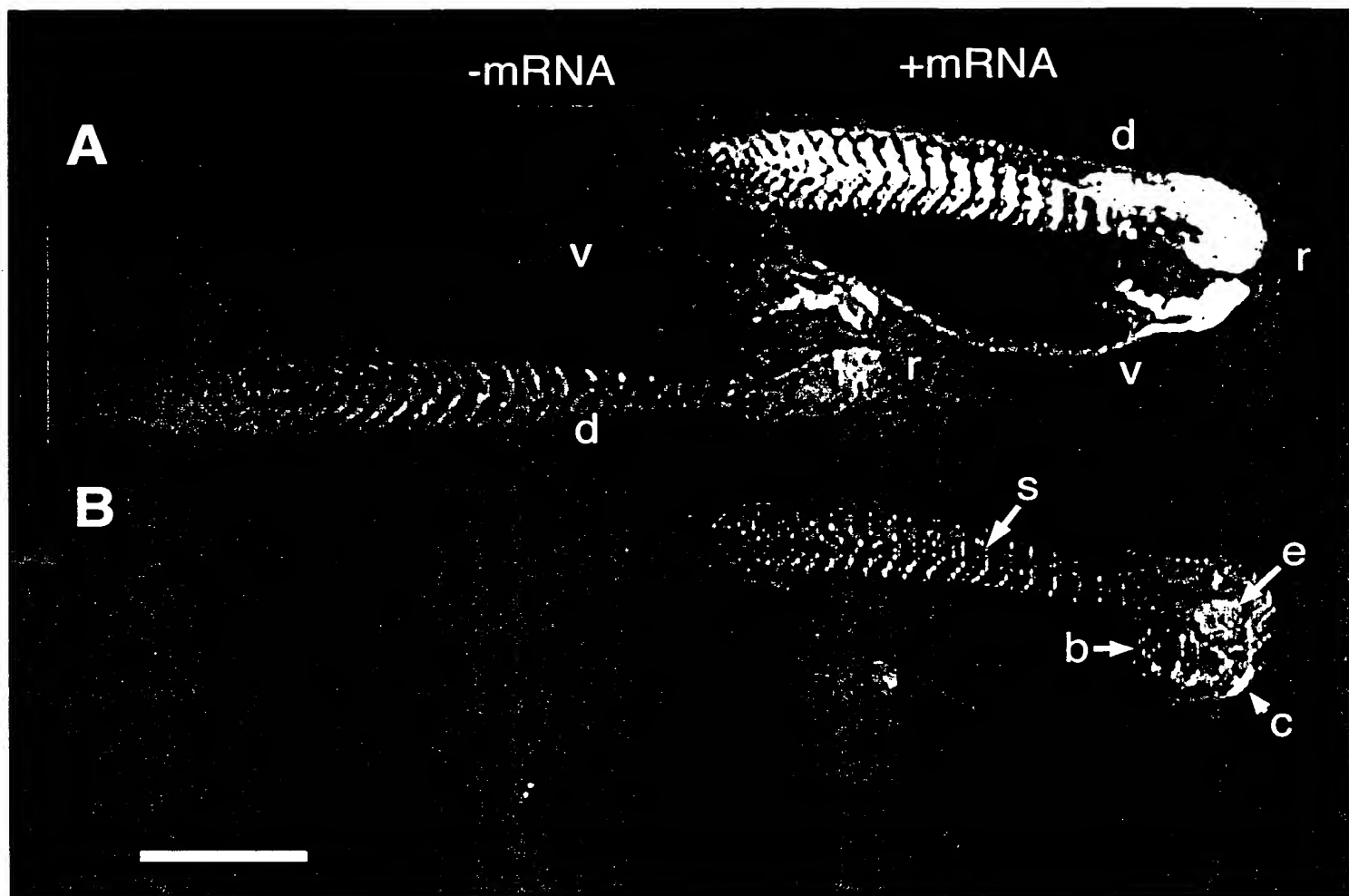


FIG._17



FIG._18

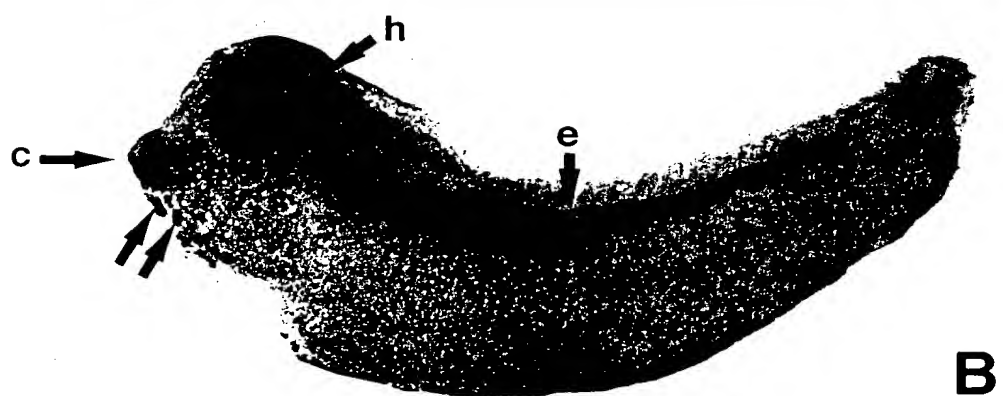
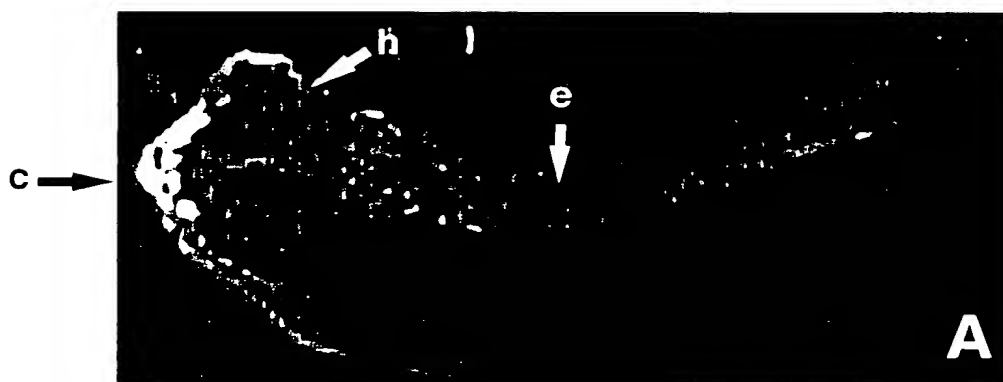


FIG._19